

CLAIMS

1. A water shut-off device for a water purifier adapted to automatically cut off the flow of raw water at the time of replacing a filter, comprising:
 - 5 a connector having a water inlet passageway and a first connector port in communication with the inlet passageway, said first connector port provided with a valve chamber; and
 - a valve body movably fitted into the valve chamber for closing the first connector port when the filter is detached from the connector and for opening
10 the first connector port when the filter is attached to the connector.
2. The water shut-off device for a water purifier as recited in claim 1, wherein said filter has an inlet port connectable to the first connector port of the connector, a filter element, an outlet port, and a pusher for causing the
15 valve body to move into a position in which the first connector port is opened, when the inlet port is brought into connection with the first connector port.
3. The water shut-off device for a water purifier as recited in claim 1, wherein said valve body comprises a ball adapted to close the first connector
20 port by the pressure of the raw water introduced through the water inlet passageway.
4. The water shut-off device for a water purifier as recited in claim 1, wherein said valve body comprises a poppet adapted to close the first
25 connector port by the pressure of the raw water introduced through the water inlet passageway, said poppet having a projecting rod contactable with the pusher through the inlet port of the filter.
5. The water shut-off device for a water purifier as recited in claim 1,
30 wherein said connector is swingable about a pivot axis between a filter service position and a filter replacement position.
6. The water shut-off device for a water purifier as recited in claim 1, wherein said connector further has a second connector port connected to the
35 outlet port of the filter and a purified water discharge passageway remaining in communication with the second connector port, said second connector port

having a valve chamber in which a valve body is disposed for automatically closing the second connector port at the time of the filter being detached, said filter comprising a pusher for causing the valve body to move in a direction in which the second connector port is opened, when the inlet port is brought into
5 connection with the second connector port.

7. The water shut-off device for a water purifier as recited in claim 1, wherein said connector further has a third connector port connected to the outlet port of the filter and an auxiliary discharge port remaining in
10 communication with the third connector port, said third connector port having a valve chamber in which a valve body is disposed for opening and closing the third connector port, said filter comprising a pusher for causing the valve body to move in a direction in which the third connector port is opened, when the auxiliary discharge port is brought into connection with the third
15 connector port.

8. The water shut-off device for a water purifier as recited in claim 1, further comprising a retainer removably attached to the first port of the connector for keeping the valve body in the valve chamber.
20

9. A water shut-off device for a water purifier adapted to automatically cut off the water flow at the time of filter replacement, comprising:

a connector having a water inlet passageway and a first connector port in communication with the inlet passageway, the first connector port provided
25 with a valve chamber;

a valve body movably fitted into the valve chamber for closing the first connector port as the filter is removed from the connector and for opening the first connector port as the filter is attached to the connector; and

a filter means detachably attached to the connector, said filter means
30 having an inlet port connectable to the first connector port of the connector, a filter element, an outlet port, and a pusher for causing the valve body to move into a position in which the first connector port is opened, when the inlet port is brought into connection with the first connector port.